

CLAIMS

1. A control device for controlling the recording of data onto an information recording medium where the number of re-writing data onto the same area is limited, the control device comprising:

means for determining whether data to be recorded is real-time data or non-real-time data;

means for, when it is determined that the data to be recorded is real-time data, recording the real-time data in a circular manner onto a second area which is defined in advance within a first area which is assigned in advance on the information recording medium; and

means for, when it is determined that the data to be recorded is non-real-time data, searching for an unassigned area from a predetermined address within the first area and recording the non-real-time data onto the unassigned area found as a result of the search,

wherein the search for the unassigned area for recording the non-real-time data is also performed in the second area within the first area.

2. A control device according to claim 1, wherein

the non-real-time data includes data for an index file, data for a clip information file and data for a playlist file,

the search for the unassigned area for recording the data for the index file is started from a leading address of the first area, and

the search for the unassigned area for recording the data for the clip information file or the data for the playlist file is started from an area adjacent to an area where the data for the index file has been recorded.

3. A control device according to claim 1, wherein

the non-real-time data includes data for a clip information file and data for a playlist file,

5 the search for the unassigned area for recording the data for the clip information file is performed in a predetermined direction from an area adjacent to an area where the data for the playlist file has been recorded, and
10 the search for the unassigned area for the data for the playlist file is performed in a direction opposite to the predetermined direction from an area adjacent to an area where the data for the clip information file has been recorded.

4. A control method for controlling the recording of data
15 onto an information recording medium where the number of re-writing data onto the same area is limited, the control method comprising the steps of:

determining whether data to be recorded is real-time data or non-real-time data;

20 when it is determined that the data to be recorded is real-time data, recording the real-time data in a circular manner onto a second area which is defined in advance within a first area which is assigned in advance on the information recording medium; and

25 when it is determined that the data to be recorded is non-real-time data, searching for an unassigned area from a predetermined address within the first area and recording the non-real-time data onto the unassigned area found as a result of the search,

30 wherein the search for the unassigned area for recording the non-real-time data is also performed in the second area within the first area.

5. A control method according to claim 4, wherein
the non-real-time data includes data for an index
file, data for a clip information file and data for a playlist
file,

5 the search for the unassigned area for recording the
data for the index file is started from a leading address
of the first area, and

the search for the unassigned area for recording the
data for the clip information file or the data for the playlist
10 file is started from an area adjacent to an area where the
data for the index file has been recorded.

6. A control method according to claim 4, wherein

the non-real-time data includes data for a clip
15 information file and data for a playlist file,

the search for the unassigned area for recording the
data for the clip information file is performed in a
predetermined direction from an area adjacent to an area
where the data for the playlist file has been recorded, and

20 the search for the unassigned area for the data for
the playlist file is performed in a direction opposite to
the predetermined direction from an area adjacent to an area
where the data for the clip information file has been recorded.

25 7. A recording device comprising:

a drive device for recording data onto an information
recording medium where the number of re-writing data onto
the same area is limited; and

30 a control device for controlling the drive device,
wherein

the control device includes:

means for determining whether data to be recorded
is real-time data or non-real-time data;

means for, when it is determined that the data to be recorded is real-time data, recording the real-time data in a circular manner onto a second area which is defined in advance within a first area which is assigned in advance on the information recording medium; and

means for, when it is determined that the data to be recorded is non-real-time data, searching for an unassigned area from a predetermined address within the first area and recording the non-real-time data onto the unassigned area found as a result of the search,

wherein the search for the unassigned area for recording the non-real-time data is also performed in the second area within the first area.

8. A recording method comprising the steps of:

recording data onto an information recording medium where the number of re-writing data onto the same area is limited; and

controlling the recording of the data, wherein

the step of controlling the recording of the data includes the steps of:

determining whether data to be recorded is real-time data or non-real-time data;

when it is determined that the data to be recorded is real-time data, recording the real-time data in a circular manner onto a second area which is defined in advance within a first area which is assigned in advance on the information recording medium; and

when it is determined that the data to be recorded is non-real-time data, searching for an unassigned area from a predetermined address within the first area and recording the non-real-time data onto the unassigned area found as

a result of the search,

wherein the search for the unassigned area for recording the non-real-time data is also performed in the second area within the first area.